Message

From: Wu, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=885E149E9BDD4094BF34508D7454CDFA-WU, JENNIFER]
Sent: 9/13/2018 12:10:31 AM
To: Abbotts, John [Abbotts.John@epa.gov]; Drabek, John [Drabek.John@epa.gov]
Subject: RE: oil and grease sheen v mg/L

Thanks, John A and D. I talked with Susan, and I'm going to put a limit of 5 mg/L in since that was what was used in other Ecology permits and they'll be the 401 certifying agency.

From: Abbotts, John
Sent: Wednesday, September 12, 2018 10:13 AM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>; Drabek, John <Drabek.John@epa.gov>
Subject: RE: oil and grease sheen v mg/L

Hello,

Proceeding on Jennifer's request below to check Dru's files on the G drive, I also found the attached pdf with monitoring data on O&G from OR Bonneville Project. The monitoring is for stormwater, but O&G is measured as Total Hydrocarbons, and the "benchmark" (stormwater permits are more likely to have benchmarks than effluent limits) is 10 mg/L.

One has to rotate the pdf to see some of the details, but the 10 mg/L (ppm) benchmark is only exceeded a few times, and one of the short reports on the oil/water separator notes that for hydrocarbons, "Anything over 8 ppm trips a valve and the discharge flow is diverted to the lagoon,"

I am guessing this report of actual experience at the Bonneville Project, along with consultation with OR and WA, may have led Dru to settle on
10 mg/L for O&G at hydroelectric dams.

Please let me know if you want more searching for Dru's rationale.

John Abbotts, SEE employee [In-House Support Contractor]
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From: Wu, Jennifer
Sent: Wednesday, September 12, 2018 9:11 AM
To: Drabek, John <Drabek.John@epa.gov>; Abbotts, John <Abbotts.John@epa.gov>
Subject: RE: oil and grease sheen v mg/L

Thanks to both of you. I'll take a look at the reports.

From: Drabek, John
Sent: Wednesday, September 12, 2018 8:32 AM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>; Abbotts, John <Abbotts.John@epa.gov>
Subject: FW: oil and grease sheen v mg/L

The Barnacle Point Shipyard permit I wrote equates 5 mg/L to no visible sheen.

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From: Drabek, John
Sent: Wednesday, September 12, 2018 8:13 AM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>; Abbotts, John <Abbotts.John@epa.gov>
Subject: FW: oil and grease sheen v mg/L

The Everett Shipyard Permit I wrote equates 5 mg/L to no visible sheen.

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From: Drabek, John
Sent: Wednesday, September 12, 2018 8:10 AM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>; Abbotts, John <Abbotts.John@epa.gov>
Subject: FW: oil and grease sheen v mg/L

John Drabek, PE
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From: Drabek, John
Sent: Wednesday, September 12, 2018 8:09 AM
To: Abbotts, John <Abbotts.John@epa.gov>; Wu, Jennifer <Wu.Jennifer@epa.gov>
Subject: RE: oil and grease sheen v mg/L

Susan was correct. I wrote a permit for Dakota Creek Industries that equated 5 mg/L to no visible sheen. John see if this statement in the current fact sheet for Dakota Creek Industries.

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From: Abbotts, John
Sent: Tuesday, September 11, 2018 6:06 PM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>
Cc: Drabek, John <Drabek.John@epa.gov>
Subject: RE: oil and grease sheen v mg/L

Thanks Jenny,

HWMBO carried out his usual betrayal by asking me to search the web, and gave no hint of material on the G drive.
I have looked at two memos on the topic, Path G/.../NPU/Hydroelectric.Permit -Idaho/Basis for WQSLimits_Monitoring/Basis for OilGrease_Limit_Monitor_Requirements.

Attached in Word is a Memo to File on Dru's conversation with OR on why they use 10 mg/L.
OTOH, also attached is a pdf on O&G effluent limits, dated March 1974.
Even at that ancient history date, the memo includes the following on page 1:
"In passing, we should also note that discharge at levels at or below 10 mg/l oil and grease does not guarantee against sheen."

On this basis, I conclude that 5 mg/L, as a current method limit, may be a more sensitive indicator for no sheen.

Also in the folder, pathway above, is a pdf that may contain O&G sample data from Bonneville. I can look at that tomorrow, as I have already exceeded my time limit as ordered by HWMBO.

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From: Wu, Jennifer
Sent: Tuesday, September 11, 2018 5:39 PM
To: Abbotts, John <Abbotts.John@epa.gov>
Cc: Drabek, John <Drabek.John@epa.gov>
Subject: RE: oil and grease sheen v mg/L

Thanks - Are there other sources than what Dru found or had in her permit? Maybe not. She compiled what she had in the G: (EPA HQ memos, OR and WA permits).

Folks from the EPA oil spill team were looking at a basis to use for a 10 mg/L vs 5 mg/L when we're trying to control for visible oil sheen.

From: Abbotts, John
Sent: Tuesday, September 11, 2018 5:21 PM
To: Wu, Jennifer <Wu.Jennifer@epa.gov>
Cc: Drabek, John <Drabek.John@epa.gov>
Subject: oil and grease sheen v mg/L

Hello,

HWMBO directed me to find equivalences for the subject line item.

I found the information pasted below on pages pdf 23 and 24, respectively, of the FS for the draft GP for ID hydro facilities, IDG360000; ScreenShots below.
Page 23 describes the 10 mg/L O&G limit as equivalent to OR and WA narrative conditions.
Then page 24 describes 5 mg/L as the minimum level applicable to method requirements for O&G.
I conclude that the method quantitation limit may be as low as 5 mg/L.

Please let me know if you want more searching.

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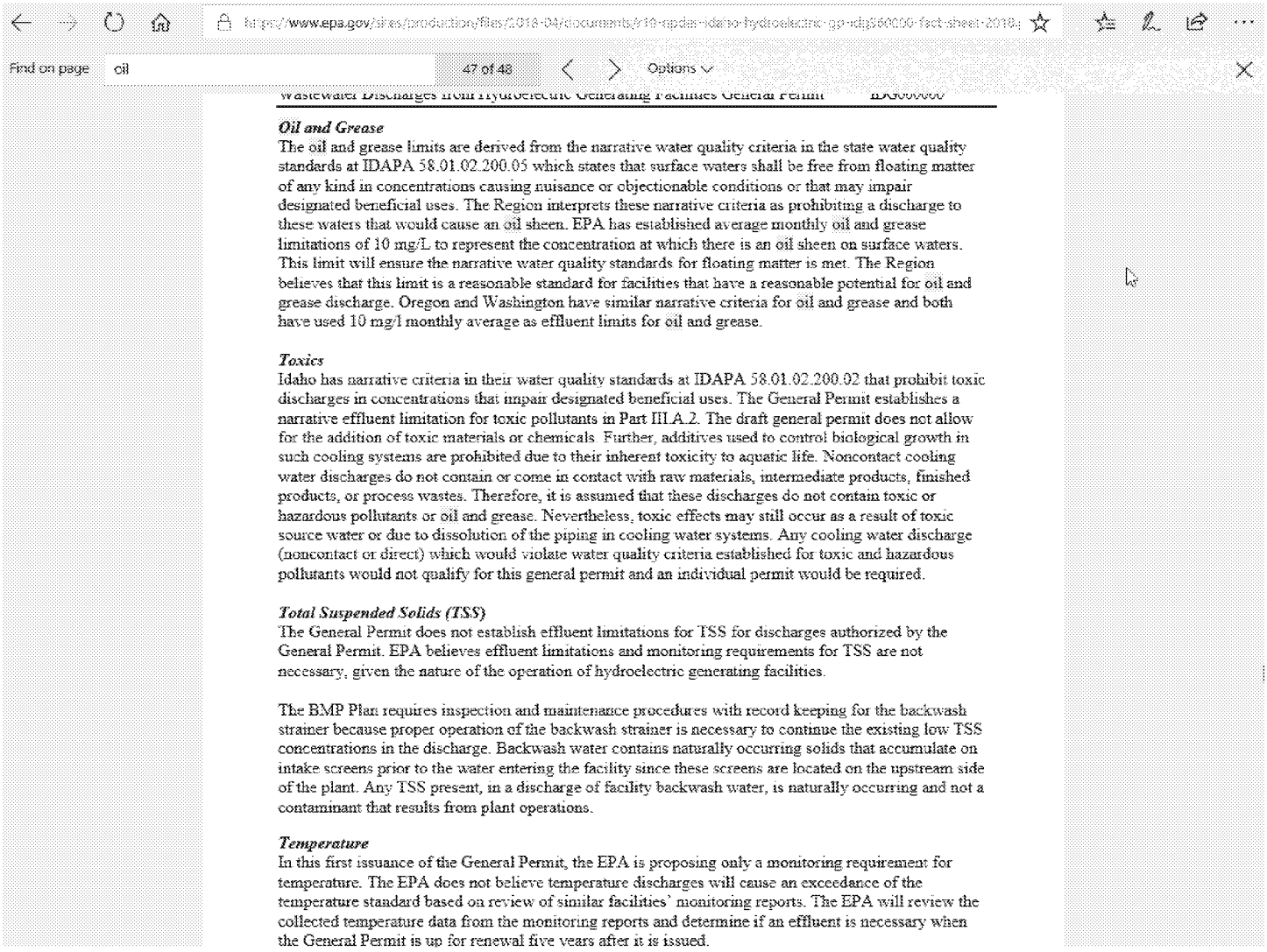

Oil and Grease
The oil and grease limits are derived from the narrative water quality criteria in the state water quality standards at IDAPA 58.01.02.200.05 which states that surface waters shall be free from floating matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses. The Region interprets these narrative criteria as prohibiting a discharge to these waters that would cause an oil sheen. EPA has established average monthly oil and grease limitations of 10 mg/L to represent the concentration at which there is an oil sheen on surface waters. This limit will ensure the narrative water quality standards for floating matter is met. The Region believes that this limit is a reasonable standard for facilities that have a reasonable potential for oil and grease discharge. Oregon and Washington have similar narrative criteria for oil and grease and both have used 10 mg/l monthly average as effluent limits for oil and grease.

Toxics
Idaho has narrative criteria in their water quality standards at IDAPA 58.01.02.200.02 that prohibit toxic discharges in concentrations that impair designated beneficial uses. The General Permit establishes a narrative effluent limitation for toxic pollutants in Part III.A.2. The draft general permit does not allow for the addition of toxic materials or chemicals. Further, additives used to control biological growth in such cooling systems are prohibited due to their inherent toxicity to aquatic life. Noncontact cooling water discharges do not contain or come in contact with raw materials, intermediate products, finished products, or process wastes. Therefore, it is assumed that these discharges do not contain toxic or hazardous pollutants or oil and grease. Nevertheless, toxic effects may still occur as a result of toxic source water or due to dissolution of the piping in cooling water systems. Any cooling water discharge (noncontact or direct) which would violate water quality criteria established for toxic and hazardous pollutants would not qualify for this general permit and an individual permit would be required.

Total Suspended Solids (TSS)
The General Permit does not establish effluent limitations for TSS for discharges authorized by the General Permit. EPA believes effluent limitations and monitoring requirements for TSS are not necessary, given the nature of the operation of hydroelectric generating facilities.

The BMP Plan requires inspection and maintenance procedures with record keeping for the backwash strainer because proper operation of the backwash strainer is necessary to continue the existing low TSS concentrations in the discharge. Backwash water contains naturally occurring solids that accumulate on intake screens prior to the water entering the facility since these screens are located on the upstream side of the plant. Any TSS present, in a discharge of facility backwash water, is naturally occurring and not a contaminant that results from plant operations.

Temperature
In this first issuance of the General Permit, the EPA is proposing only a monitoring requirement for temperature. The EPA does not believe temperature discharges will cause an exceedance of the temperature standard based on review of similar facilities' monitoring reports. The EPA will review the collected temperature data from the monitoring reports and determine if an effluent is necessary when the General Permit is up for renewal five years after it is issued.

Parameter	Units	AML	Designated Use in Idaho WQS Linked to Specific Water Quality Criteria Used as Basis for Limits
Temperature	°C	[1]	Aquatic Life
Oil and Grease	mg/L	10	Aquatic Life

[1] Refer to discussion in Part VI.C, above.

D. Minimum Levels

All water samples must be analyzed using EPA approved analytical methods, and must be analyzed using a sufficiently sensitive method that will detect the concentration of the parameter if it is present.

Table 3. Minimum Levels Applicable in the Idaho Hydroelectric Facilities General Permit

Parameter	ML/Interim ML
pH	N/A
Temperature	0.2°C
Oil and Grease	5 mg/L

E. Anti-degradation and Clean Water Act Section 401 Certification

The WQS contain an anti-degradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

> Tier 1 Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected [IDAPA 58.01.02.051.01; 58.01.02.052.01]. Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
>
> Tier 2 Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development [IDAPA 58.01.02.051.02; 58.01.02.052.08].
>
> Tier 3 Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters (ORWs) and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

The EPA has reviewed Idaho's anti-degradation analysis in the 401 certification and finds that it is consistent with the State's anti-degradation implementation procedures. Comments on the 401 certification, including the anti-degradation analysis, can be submitted to the IDEQ as set forth above